



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

September 29, 2014

Mr. Joe W. Shea
Vice President, Nuclear Licensing
Tennessee Valley Authority
P.O. Box 2000
Soddy-Daisy, TN 37384

SUBJECT: SAFETY EVALUATION REPORT WITH OPEN ITEMS RELATED TO THE
SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2, LICENSE RENEWAL
APPLICATION (TAC NOS. MF0481 AND MF0482)

Dear Mr. Shea:

By letter dated January 7, 2013, Tennessee Valley Authority submitted an application pursuant to Title 10 of the *Code of Federal Regulations* (CFR) Part 54 "Requirements for Renewal of Operating Licenses for Nuclear Power Plants," to renew the operating license DPR-77 and DPR-79 for Sequoyah Nuclear Plant, Units 1 and 2 (SQN), for review by the U.S. Nuclear Regulatory Commission (NRC) staff. The staff determined that the license renewal application (LRA) was complete and acceptable for docketing on February 26, 2013.

The staff has reviewed SQN's LRA and has developed the enclosed "Safety Evaluation Report with Open Items (ML14266A033)," hereinafter referred to as the Safety Evaluation Report (SER). This SER reflects the status of the staff's review of the LRA to date, requests for additional information (RAIs), the applicant's responses to the staff's RAIs and other questions related to the LRA through August 21, 2014, unless otherwise noted, and identifies open items remaining in the review.

The staff has identified one open item in its review which must be resolved before it can make a final determination on the application. SER, Section 1.5, includes a listing of the open item with a summary of information required to resolve each issue. The open item has associated RAIs described below. Despite active efforts to reach technical resolution with the licensee, the staff's review of these issues continue, pending resolution of these RAIs.

The open item is referred to as B.1.34-1 Reactor Vessel Internals. LRA Section B.1.34 describes the existing Pressurized Water Reactor (PWR) Vessel Internals Program taken together with its enhancements, as being consistent with the Generic Aging Lessons Learned (GALL) Report Aging Management Program (AMP) XI.16A, "PWR Vessel Internals," as revised by License Renewal Interim Staff Guidance (LR-ISG)-2011-04. The applicant stated that its PWR Vessel Internals Program implements the guidance of Materials Reliability Program (MRP)-227-A, "PWR Reactor Internals Inspection and Evaluation Guideline," dated January 9, 2012. This guidance includes the applicant's plant-specific responses to action items, conditions, and limitations identified in the NRC safety evaluation (SE) for MRP-227, Revision 1. During its review of the applicant's program and responses to Applicant/Licensee Action Item (A/LAI) No. 1 for MRP-227-A, the staff issued RAI B.1.34-9, requesting that the applicant clarify the existence of nonwelded or austenitic stainless steel components with specific fabrication and operating stress conditions, as well as specifics on fuel design and management as

J. Shea

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bounded by the assumptions of MRP-227-A A/LAI No. 1. The applicant provided its response by letter dated January 16, 2014, revised responses by letters dated March 3, 2014 and August 21, 2014. The applicant's last response addressed the technical issues related to the RAI, however the staff's review was ongoing at the time of the issuance of this SER with open items. The staff's complete review and resolution of the open item will be outlined in the final SER.

In accordance with the schedule for completing the review of SQN's LRA, the applicant is requested to review the enclosed SER, verify its accuracy, and provide comments to the staff within 45 days from the date of this letter. The next milestone for this project is the Advisory Committee on Reactor Safeguards Subcommittee meeting on November 5, 2014.

If you have any questions regarding this matter, please contact the license renewal project manager, Mr. Emmanuel Sayoc, by telephone at 301-415-4084 or by e-mail at emmanuel.sayoc@nrc.gov.

Sincerely,

/RA/

John W. Lubinski, Director
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket Nos. 50-327 and 50-328

Enclosure:
As stated

cc w/encl: Listserv

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Sincerely,
/RA/
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 Division of License Renewal
 Office of Nuclear Reactor Regulation

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ADAMS Accession No.: ML14195A209 (LTR), ML14266A033 (SER), ML14266A035 (PACKAGE)

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